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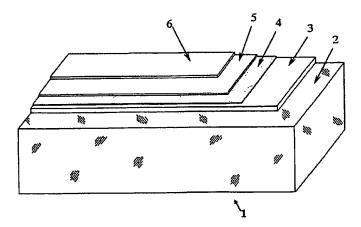
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[Continued on next page]

(54) Title: METHOD FOR PRODUCING A CONTINUOUS WATERPROOFING FLOORING

Table



2004/057128 A1 IIIII (57) Abstract: The subject matter of the present invention is to provide a method for producing a continuous waterproofing flooring. This method consists in waterproofing a foundation (2) with the following coupled system: a) two component liquid applied waterproofing membrane (3) based on a hydraulic binders, with or without reinforcing fibrous base layer or matting (4), that provides for water vapor permeability and watertightness; b) polymer-based coating (6), with or without aggregates, constituting the visible side of the walkable and vehicle-suitable flooring, characterized by high water vapor permeability. The flooring thus obtained is a continuous flooring with characteristics of high water vapor permeability and watertightness and characterized in that it's nonslip, self-cleaning, not subject to yellowing, wear and tear resistant.

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Title

"METHOD FOR PRODUCING A CONTINUOUS WATERPROOFING FLOORING"

Description

Nowadays, in the building industry, the waterproofing of flat roofs, terraces, balconies and the like is performed by various methods, which can be distinguished according to the chemical nature of the covering. We'll now briefly analyse the performances of such covering in order to highlight those limitations which can be overcome by the present invention.

Bitumen-based waterproofing sheets

Bitumen-based waterproofing sheets are usually fixed to the roof by means of flame heating or self-adhesive systems. During manufacturing they can be coated with protective elements, as foils or coloured marble chips. These elements improve the appearance, the weatherability, the wear resistance and the tear resistance of the sheet. Nevertheless this material can't be considered a pedestrian or vehicle-suitable floor coating because of thermoplastic behaviour of bitumen with increasing temperature; in the summer, indeed, bitumen-based sheets, even though protected, are damaged and deformed by pedestrian or vehicle traffic. This material, moreover, is not water vapor permeable, so that it's impossible also for very small amount of liquid water to evaporate from foundation.

Polyvinylchloride-based and olefinic rubber-based waterproofing sheets

This material is made of very wide prefabricated rolled up sheets and it's sufficient to lay them on the roof, without any adhesive system, and cover them with gravel or earth to prevent any movement. But if you want to make a concrete or tile flooring on this waterproofing material, you have not negligible

additional cost due to the high cost of manual labour. Furthermore, neither of these sheets possess enough water vapor permeability to allow even the slightest percentage of water evaporation from foundation.

Resin-based waterproofing materials (two-component elastomeric polyurethane, one-component urethane, two-component epoxypolyurethane, polyester, two-component silicone resins and neoprene resins)

These materials possess characteristics of application that get close to the subject matter of the present invention; however, they show the following disadvantages:

- i) insufficient water vapor permeability to allow application on wet foundation
 (if applied at this condition, bubble forming and detachment of the resin coating from the lower layer will occur);
- ii) high cost of raw materials;
- iii) need of applying more than one coating of resin and aggregates, thus increasing manual labour cost;

Flexible two-component methacrylic resin-based waterproofing materials

These materials possess characteristics of application that get close to the subject matter of the present invention; however, they show the following disadvantages:

- i) difficulties of application on very porous foundation (these materials are not fit to permeate and strengthen surfaces that will eventually have little cohesion);
- ii) high cost of raw materials;
- iii) high flammability of the components;
- iv) high vapor pressure of the methacrylic monomer which implies a remarkable

spreading of vapor and smell in the building site and the surroundings;

v) a marked tendency of the coating to yellowing.

Latex-based waterproofing membranes (acrylic esters, styrene-acrylate, and acrylonitrile latices)

These materials are a considerable part of the liquid applied waterproofing products in today's market. They show the following disadvantages:

- i) insufficient permeability to water vapor to allow application on wet foundation (if applied on these conditions, bubble forming and detachment from foundation will occur);
- ii) minimum film forming temperature higher than +7 + +8 °C;

Liquid applied waterproofing membranes based on cement-latex mix

These materials are constituted by a powder part containing a cement binder, and by a conveniently formulated liquid part containing polymeric latices. The waterproofing system thus obtained guarantees the permeability to water vapor and the impermeability to liquid water, but it cannot be considered flooring system since it does not possess enough aesthetic characteristics and tear resistance; therefore it is necessary to apply a protective finish (e.g. tile covering).

There are patents that deal with continuous waterproofing covering systems and refer to the use of materials and to the limitations above mentioned.

Accordingly, mention is made of US 4,588,458, which discloses the use of a waterproofing membrane composed by a fibrous reinforcing base layer or matting impregnated with thermoplastic polymers-bitumen mix; GB 2193153, which discloses the use of a water vapor permeable felt constituted by non-woven fabric impregnated with bitumen on whose underside a film of perforated plastic

material is applied, and then a thin metal layer; US 4,897,313, which discloses the use of a waterproofing system composed by a first coating of butyl acrylate, styrene and acrylonitrile copolymer latex, and a prefabricated self-adhesive sheet of bitumen modified with elastic polymers; WO 01/72514, which discloses the use of covering panels composed by an upper coating of acrylonitrile, styrene and acrylic esters copolymers and of a lower coating of polyvinylchloride; US 5,422,179, which discloses the use of waterproofing polymeric sheets obtained by copolymerization of ethylene, vinyl esters and acrylic esters; DE 3342560, which discloses the use of waterproofing sheets made of olefinic rubber strengthened with a fibreglass matting; US 6,395,845, which discloses the use of epoxy resinbased waterproofing sheets; WO 94/04349, which discloses the use of flexible protective waterproofing sheets composed by a flexible polymeric foil impregnated with a cement binder-based material; EP 0794299, in which a reference is made about production method of flat covering can be obtained by applying two coatings of a cement binder-latex mix reinforced, in the middle, by a perforated polypropylene sheet.

A principal aim of the present invention is therefore to solve the described problems, eliminating the drawbacks of the mentioned prior art, by providing a method that allows the production of a continuous waterproofing flooring on flat roofs, terraces, balconies and other flat structures.

Within the scope of this aim, an important object of the present invention is to provide a continuous waterproofing flooring that can be applied on any surface, new or old, constituted by cement foundation, different kinds of tiles or natural and artificial stone coverings.

Another object of the present invention is to provide a continuous

waterproofing flooring that can be applied even on wet foundation and with temperatures down to +0.5 °C.

Another object of the present invention is to provide a continuous waterproofing flooring suitable for pedestrian and light vehicle use (with mass up to 3.5 tons), self-cleaning, nonslip, not subject to yellowing, wear and tear resistant.

Another object of the present invention is to provide a continuous waterproofing flooring that can be produced on site and in only two steps with a short interval of time between them.

This aim, these objects and others which will become apparent hereinafter are achieved by providing a method for producing a continuous waterproofing flooring, characterized in that it comprises the following steps:

- a) a first step consisting in laying, on a previously prepared foundation, a layer of two-component liquid applied waterproofing membrane based on a hydraulic binder-latex mix, or laying a layer of two-component liquid applied waterproofing membrane based on hydraulic binder-latex mix followed by the laying and impregnation with the same liquid mix of a fibrous reinforcing base layer or matting;
- b) a second step consisting in coating of the above described waterproofing membrane with a mix of polymers, additives, and eventually aggregates.

Further characteristics and advantages of the invention will become apparent evident from the following detailed description of a particular structure thereof, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a perspective view of the flooring;

figure 2 is a sectional view of the flooring of figure 1.

With reference to the above figures, the reference numeral 1 designates a continuous waterproofing flooring for a previously prepared foundation 2 that is constituted by a base provided for example by means of a concrete casting.

The continuous waterproofing flooring is produced on site and entails the execution of both the above mentioned steps.

The first step consists in laying the layer 3 (two-component liquid applied waterproofing membrane based on a hydraulic binder-latex mix) on foundation 2. The two-component liquid applied waterproofing membrane based on a hydraulic binder-latex mix is composed of a mix of aggregates, additives, hydraulic binders, polymer latices and water obtained by mixing the dry and liquid components. Therefore the resulting material is composed of a mix of water, hydraulic binders and at least one polymer latex, for example styrene-acrylic esters latex. If necessary, just after the application of layer 3 is completed, you can proceed to lay a fibrous reinforcing base layer or matting 4 that can be constituited by non-woven fabric, felt, matting or any other structure that allows impregnation by and incorporation in layer 3; in this case it is advisable to lay on the fibrous reinforcing base layer or matting 4 a finishing layer 5 made of the same liquid mix. The interposition of the fibrous reinforcing base layer or matting 4 between the two layers of liquid mix allows to increase the tensilestrength characteristics of layer 3 and it should not alter the water vapor permeability of the system. Layers 3, 4 and 5 all together are waterproofing and water vapor permeable, so as to allow the laying of the system even on wet foundation. These characteristics are provided only by layer 3 when the liquid mix is applied without the fibrous reinforcing base layer or matting 4.

The second step consists in laying, on layer 5 (or 3, if the fibrous reinforcing base layer or matting 4 is not present), a pigmented or transparent mix of polymers and additives characterized by high water vapor permeability; this mix could eventually contain natural or artificial, coloured or not, aggregates.

The system obtained by laying the different components as described in the first and the second step, is the continuous waterproofing flooring, that is the object of the present invention.

The dimensions constituting the individual components of the product obtained with the present method can of course be the most appropriate according to the specific requirements.

Obviously, the method provided by the present invention is susceptible of changes, all of them being within the same inventive concept.

Claims

- A method for producing a continuous waterproofing flooring characterized in that it's obtainable exclusively by coupling the appropriate materials in according to the laying steps hereafter specified:
 - 1.a) a first step consisting in laying on a previously prepared foundation a layer of two-component liquid applied waterproofing membrane based on hydraulic binders.
 - 1.b) a second step consisting in the coating of the above described waterproofing membrane with a mix of polymers and additives, so as to create the visible side of the walkable and vehicle-suitable flooring.
- A method according to claim 1, characterized in that said waterproofing membrane is composed by a mix of aggregates, additives, hydraulic binders, polymer latices and water.
- A method according to claim 1, characterized in that said waterproofing membrane is composed by at least one hydraulic binder.
- 4. A method according to claim 1, characterized in that said waterproofing membrane acts as a protection for foundation.
- 5. A method according to claim 1, characterized in that said waterproofing membrane acts as a waterproofing agent for foundation.
- A method according to claim 1, characterized in that said waterproofing membrane acts as an adhesive for the finishing coating.
- 7. A method according to claim 1, characterized in that said waterproofing membrane can be reinforced by natural or synthetic fibres predispersed in the dry component of the mix; the possible addition of this element doesn't invalidate the claimed invention.
- 8. A method according to claim 1, characterized in that said waterproofing

membrane can be reinforced, during laying, by a fibrous base layer or matting constituted by non-woven fabric, felt, matting or any other material fit for the purpose, that can be impregnated on site; the possible addition of this element doesn't invalidate the claimed invention.

- 9. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is an acrylic polymer.
- 10. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is a styrene-acrylic ester copolymer.
- 11. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is an epoxy polymer.
- 12. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is a methacrylic polymer.
- 13. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is an unsaturated polyester resin.
- 14. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of a walkable and vehicle-suitable flooring, is a polyurethane resin.
- 15. A method according to claim 1, characterized in that the coating, constituting the visible side of the walkable and vehicle-suitable flooring, can be coloured or pigmented; the possible addition of colours or pigments don't invalidate the claimed invention.

16. A method according to claim 1, characterized in that the polymer resins in the coating, constituting the visible side of the walkable and vehicle-suitable flooring, can be mixed with any kind of aggregates; the possible addition of these aggregates don't invalidate the claimed invention.

AMENDED CLAIMS

[Received by the International Bureau on 02 OCT 2003 (02.10.03); original claims 1, 3 to 6, 8 and 15, amended; original claims 9 to 14, unchanged; original claims 2, 7 and 16, cancelled]

- A method for producing a continuous waterproofing theoring characterized in that it's obtainable exclusively by coupling two distinct layers in according to the laying steps hereafter specified:
 - 1.a) the first layer consisting in laying, on a previously prepared foundation, a composite system formed by a prefabricated fibrous reinforcing base layer or matting impregnated by a two-component liquid applied mix based on polymer latices and hydraulic binders;
 - 1.b) the second layer consisting in the coating of the above described first layer with a mix of polymers and additives, with or without any kind of aggregates, so as to create the visible side of the walkable and vehiclesuitable flooring.
- A method according to claim 1, characterized in that said impregnating twocomponent liquid applied mix of the composite system is composed by at least one polymer latex and one hydraulic binder.
- A method according to claim 1, characterized in that the first layer has the ability to bridge the cracks in the foundation without losing its waterproofing ability.
- 5. A method according to claim 1, characterized in that said impregnating two-component liquid applied mix of the composite system acts as a waterproofing agent for the foundation.
- A method according to claim 1, characterized in that said impregnating twocomponent liquid applied mix of the composite system makes the prefabricated fibrous reinforcing base layer or matting adhere to the foundation.
- 8. A method according to claim 1, characterized in that said prefabricated fibrous reinforcing base layer or matting can be made of woven-non-woven materials obtained from staple or continuous fibre, chopped strand matting,

fibreglass net or net made of any kind of synthetic fibre, felt, monodirectional or multi-directional band made of carbon fibre, fibreglass or aromatic polyamides fibre, or any other material fit for the purpose.

- 9. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is an acrylic polymer.
- 10. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is a styrene-acrylic ester copolymer.
- 11. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is an epoxy polymer.
- 12. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is a methacrylic polymer.
- 13. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of the walkable and vehiclesuitable flooring, is an unsaturated polyester resin.
- 14. A method according to claim 1, characterized in that at least one component of the coating, constituting the visible side of a walkable and vehicle-suitable flooring, is a polyurethane resin.
- 15. A method according to claim 1, characterized in that the polymer resins in the coating, constituting the visible side of the walkable and vehicle-suitable flooring, can be transparent, coloured or pigmented.

STATEMENT UNDER ARTICLE 19 (1)

Claim 1 has been amended to highlight:

- a) the two distinct layers structure of the flooring, in contrast with the multilayer structure, described in JP56022685, which is obtained by bleeding effect during the solidification of the mixture in a not always reproducible and controllable manner;
- b) the importance of the prefabricated fibrous reinforcing base layer or matting (4 in fig. 1) in producing the first composite layer of the flooring.

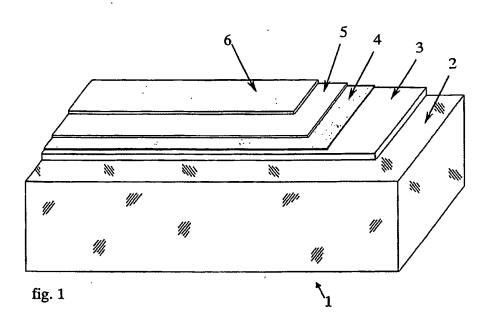
The two-component liquid applied membrane as originally described is no longer a component apart, but now it's the impregnating, waterproofing and adhesive agent of the composite system. In amended claims 3, 5 and 6 the two-component liquid applied impregnating mix must be considered under these aspects.

By virtue of the clear distinction beetwen the two layers of the flooring, claims 9 and 10 are unchanged because even if the some ingredients cited in this application are the same of those ones cited in JP56022685, the modalities and the purposes by which they are used are surely different since the second layer (or upper layer) of this application has not to exhibit the same elastic properties of the upper layer as described in JP56022685. According to this the reference to color in amended claim 15 is not in contrast with JP56022685.

In amended claim 4 the idea of protection of the foundation is made clear in terms of crack bridging ability of the first composite layer, which must be waterproofing even if the urderlying foundation cracks.

In amended claim 8 different kind of prefabricated fibrous reinforcing base layers or mattings used in the composite first layer are specified.

Table



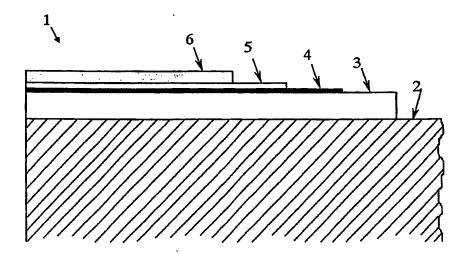


fig. 2

INTERNATIONAL SEARCH-REPORT

Internal Application No
PCT/11 03/00170

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Minimum do IPC 7	ocumentation searched (classification system followed by classification EO4D EO4F EO4B EO1C	on symbols)	
Documenta	lion searched other than minimum documentation to the extent that s	uch documents are included in the fields sear	ched
Electronic d	ala base consulted during the International search (name of data ba	se and, where practical, search terms used)	
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT	**************************************	
Category *	Citation of document, with indication, where appropriate, of the ret	evant passages	Relevant to claim No.
x	JP 56 022685 A (SUMITOMO CEMENT) 3 March 1981 (1981-03-03)		1-10,15, · 16
A	abstract		11-14
А	EP 0 794 299 A (VOLTECO S.P.A.) 10 September 1997 (1997-09-10) cited in the application column 2, line 40 -column 3, line figures	÷ 40;	1-9,15, 16
Furtl	ner documents are listed in the continuation of box C.	Patent family members are listed in	annex.
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INTERNATIONAL SEARCH REPORT DES

- ^ Interns 1 Application No PCT/11 03/00170

Patent document dted in search report		Publication date		Patent family member(s)		Publication date
JP 56022685	Α	03-03-1981	JP	1207837	C	29-05-1984
			JP	58043356	В	26-09-1983
EP 794299	Α	10-09-1997	IT	TV960031	A1	08-09-1997
			AT	217377	T	15-05-2002
			DE	69712395	D1	13-06-2002
			DE	69712395	T2	05-09-2002
			DK	794299	T3	17-06-2002
			EP	0794299	A1	10-09-1997
			ES	2175209	T3	16-11-2002
			PT	794299	T	31-10-2002
			SI	794299	T1	31-08-2002

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30. April 2005

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	Allgemeine Vollmacht ist eingereicht, aber noch nicht registriert.		A general authorisation has filed, but not yet registered			Un pouvoir général a été déposé, mais n'est pas encore enregistré.
	Die beim EPA als PCT-Anmeldeamt eingereichte Vollmacht schließt aus- drücklich die europäische Phase ein.		The authorisation filed with as PCT receiving Office ex- includes the European pha	pressly		Le pouvoir général déposé à l'OEB agissant en qualité d'office récepteur au titre du PCT s'applique expressé- ment à la phase européenne.

	4.	Prüfungsantrag Hiermit wird die Prüfung der Anmeldung gemäß Art. 94 EPU beantragt. Die Prüfungsgebühr wird (wurde) entrichtet. Prüfungsantrag in einer zugelassenen Nichtamtssprache (siehe Merkblatt III, 5.2):	4.	Request for examination Examination of the application under Art. 94 EPC is hereby requested. The examination fee is being (has been, will be) paid. Request for examination in an admissible non-EPO language (see Notes III, 5.2):	4.	Requête en examen Il est demandé que soit examinée la demande de brevet conformément à l'art. 94 CBE. Il est (a été, sera) procédé au paiement de la taxe d'examen. Requête en examen dans une langue non officielle autorisée (voir notice III, 5.2):
	5.	Abschriften Zusätzliche Abschrift(en) der im ergänzenden europäischen Recherchenbericht angeführten Schriftstücke wird (werden) beantragt. Anzahl der zusätzlichen Sätze von Abschriften	5.	Copies Additional copy (copies) of the documents cited in the supplementary European search report is (are) requested. Number of additional sets of copies	5.	Copies Prière de fournir une ou plusieurs copies supplémentaires des documents cités dans le rapport complémentaire de recherche européenne. Nombre de jeux supplémentaires de copies
	6.	Für das Verfahren vor dem EPA bestimmte Unterlagen	6.	Documents intended for pro- ceedings before the EPO	6.	Pièces destinées à la procédure devant l'OEB
:	6.1	Dem Verfahren vor dem EPA als Bestimmungsamt (PCT I) sind fol- gende Unterlagen zugrunde zu legen:	6.1	Proceedings before the EPO as designated Office (PCT i) are to be based on the following documents:	6.1	Le procédure devant l'OEB agissant en qualité d'office désigné (PCT I) doit se fonder sur les pièces suivantes :
		die vom Internationalen Büro ver- äffentlichten Anmeldungsunter- lagen (mit allen Ansprüchen, Beschreibung und Zeichnungen), gegebenenfalls mit den geänderten Ansprüchen nach Art. 19 PCT		the application documents pub- lished by the International Bureau (with all claims, description and drawings), where applicable with amended claims under Art. 19 PCT		les pièces de la demande publiée par le Bureau international (avec toutes les revendications, la descrip- tion et les dessins), éventuellement avec les revendications modifiées conformément à l'article 19 du PCT
		soweit sie nicht ersetzt werden durch die beigefügten Änderungen.		unless replaced by the amend- ments enclosed.		dans la mesure où elles ne sont pas remplacées par les modifications jointes.
		Falls nötig, sind Klarstellungen auf einem Zusatzblatt einzureichen!		Where necessary, clarifications must be submitted on a separate sheet!		Le cas échéant, des explications doivent être jointes sur une feuille additionnelle!
	6.2	Dem Verfahren vor dem EPA als ausgewähltem Amt (PCT II) sind fol- gende Unterlagen zugrunde zu legen:	6.2	Proceedings before the EPO as elected Office (PCT II) are to be based on the following documents:	6.2	La procédure devant l'OEB agissant en qualité d'office élu (PCT II) doit se fonder sur les pièces suivantes :
×		die dem Internationalen vorläufigen Prüfungsbericht zugrunde gelegten Unterlegen, einschließlich seiner eventuellen Anlagen (Solche Anlagen müssen immer beigefügt werden)		the documents on which the inter- national preliminary examination report is based, including its possible annexes (Such ennexes must always be filed)		les pièces sur lesquelles se fonde le rapport d'examen préliminaire international, y compris ses annexes éventuelles (De telles annexes sont toujours à joindre)
		soweit sie nicht ersetzt werden durch die beigefügten Ände- rungen.		unless replaced by the amend- ments enclosed.		dans la mesure où elles ne sont pas remplacées par les modifications jointes.
		Falls nötig, sind Klarstellungen auf einem Zusatzblatt einzureichen!		Where necessary, clarifications must be submitted on a separate sheet!		Le cas échéant, des explications doivent être jointes sur une feuille additionnelle!
		Sind dem EPA els mit der internatio- nalen vorläufigen Prüfung beauf- tragten Behörde Versuchsberichte zugegangen, dürfen diese dem Ver- fahren vor dem EPA zugrunde gelegt werden.		If the EPO as International Prelimi- nary Examining Authority has received test reports, these may be used as the basis of proceedings before the EPO.		Si l'OEB, agissant en qualité d'administration chargée de l'examen préliminaire international, a reçu des rapports d'essais, ceux-ci peuvent constituer la base de la procédure devant l'OEB.

7.	Obersetzungen Beigefügt sind die nachfolgend angekreuzten Übersetzungen in einer der Amtssprachen des EPA (Deutsch, Englisch, Französisch): Im Verfahren vor dem EPA als Bestimmungsemt oder	7.	Translations Translations in one of the official languages of the EPO (English, French, German) are enclosed as crossed below: In proceedings before the EPO as designated or elected Office (PCT I + II):	7.	Traductions Vous trouverez, ci-joint, les traductions cochées ci-après dans l'une des langues officielles de l'OEB (allemand, anglais, français): Dans la procédure devant l'OEB egissant en qualité d'office désigné ou étu (PCT I + II):
	Übersetzung der ursprünglich eingereichten Internationalen Anmeldung (Beschreibung, Ansprüche, etwaige Textbestandteile in den Zeichnungen), der veröffentlichten Zusammenfassung, und etwaiger Angaben über biologisches Material nach Regel 13 ³⁵ .3 und 13 ⁵⁵ .4 PCT		Translation of the International application (description, claims, any text in the drawings) as originally filed, of the abstract as published and of any indication under Rule 13th, 3 and 13th, 4 PCT regarding biological material		Traduction de la demanda internationale talle que déposée initialement (description, revendications, textes figurant éventuellement dans les dessins), de l'abrégé publié, et de toutes indications visées aux règles 13%.3 et 13% 4 du PCT concernant le matériel biologique
	Übersetzung der prioritäts- begründenden Anmeldung(en)		Translation of the priority application(s)		Traduction de la (des) demande(s) ouvrant le droit de priorité
X	Es wird hiermit erklärt, daß die internationale Anmeldung in ihrer ursprünglich eingereichten Fassung eine vollständige Übersetzung der früheren Anmeldung ist (Regel 38(5) EPÜ)		It is hereby declared that the international application as originally filed is a complete translation of the previous application (Rule 38(5) EPC)		Il est déclaré par la présente que la demande internationale telle que déposée initialement est une traduction intégrale de la demande antérieure (règle 38(5) CBE)
	Zusätzlich im Verfahren vor dem EPA als Bestimmungsamt (PCT I):		 In addition, in proceedings before the EPO as designated Office (PCT I): 		 De plus, dans la procédure devant l'OEB agissent en qualité d'office désigné (PCT I):
X	Übersetzung der nach Art. 19 PCT geänderten Ansprüche nebst Erklärung, falls diese dem Verfahren vor dem EPA zugrunde gelegt werden sollen (siehe Feld 6)		Translation of amended claims and any statement under Art. 19 PCT, if the claims as amended are to form the basis for the proceedings before the EPO (see Section 6)		Traduction des revendications modifiées et de la déclaration faite conformément à l'article 19 du PCT, si la procédure devant l'OEB doit être fondée sur les revendications modifiées (voir la rubrique 6)
	• Zusätzlich im Verfahren vor dem EPA als ausgewähltem Amt (PCT II):		 In addition, in proceedings before the EPO as elected Office (PCT II): 		 De plus, dans la procédure devant l'OEB agissant en qualité d'office étu (PCT II) :
	Übersetzung der Anlagen zum Internationalen vorläufigen Prüfungsbericht		Translation of any annexes to the international preliminary examination report		Traduction des annexes du rapport d'examen préliminaire international
8.	Biologisches Material Die Erfindung bezieht sich auf bzw. verwendet biologisches Material, das nach Regel 28 EPÜ hinterlegt worden ist.	8.	Biological material The invention relates to and/or uses biological material deposited under Rule 28 EPC.	8.	Matière biologique L'invention concerne et/ou utilise de la matière biologique, déposée conformément à la règle 28 CBE.
	Die Angaben nach Regel 28(1)c) EPÜ (falls noch nicht bekannt, die Hinterlegungsstelle und das (die) Bezugszeichen (Nummer, Symbole usw.) des Hinterlegers) sind in der internationalen Veröffentlichung oder in der gemäß Feld 7 eingereichten Übersetzung enthalten auf:		The particulars referred to in Rule 28(1)(c) EPC (if not yet known, the depository institution and the identification reference(s) Inumber, symbols etc.] of the depositor) are given in the international publication or in the translation submitted under Section 7 on:		Les indications visées à la règle 28(1)c) CBE (si non encore connues, l'autorité de dépôt et la (les) référence(s) d'identification (numéro ou symboles etc.) du déposant figurent dans la publication internationale ou dans une traduction produite conformément à la rubrique 7 à la / aux:
	Seite(n) / Zeile(n)		page(s) / line(s)		page(s) / ligne(s)
	Die Empfangsbescheinigung(en) der Hinterlegungsstelle		The receipt(s) of deposit issued by the depositary institution		Le(s) récépissé(s) de dépôt délivré(s) par l'autorité de dépôt
	ist (sind) beigefügt		is (are) enclosed		est (sont) joint(s)
	wird (werden) nachgereicht		will be filed at a later date		sera (seront) produit(s) ultérieurement
	Verzicht auf die Verpflichtung des Antragstellers nach Regel 28(3) EPÜ auf gesondertem Schriftstück		Waiver of the right to an undertaking from the requester pursuant to Rule 28(3) EPC attached.		Renonciation, sur document distinct, à l'engagement du requérant au titre de la règle 28(3) CBE.

	sequen Die nach sowie R	n Regeln 5.2 und 13™ PCT egel 111(3) EPÜ erforderli- iterlagen liegen dem EPA	9.	Nucleotide and amino acid sequences The items necessary in accordance with Rules 5.2 and 13 ^{ss} PCT and Rule 111(3) EPC have already been furnished to the EPO.	9.	Séquences de nucléotides et d'acides aminés Les pièces requises selon les règles 5.2 et 13 th PCT et la règle 111(3) CBE ont déjà été déposées auprès de l'OEB.
		riftliche Sequenzprotokoll iegend nachgereicht.		The written sequence listing is furnished herewith.		La liste de séquences écrite est produite ci-joint.
	ūber der u	Sequenzprotokoll geht nicht den Inhalt der Anmeldung in rsprünglich eingereichten ung hinaus.		The sequence listing does not include matter which goes beyond the content of the application as filed.		La liste de séquences ne contient pas d'éléments s'étendant au-delà du contenu de la demande telle qu'elle a été déposée.
	Der vorg ist beige	geschriebene Datenträger afügt.		The prescribed data carrier is enclosed.		Le support de données prescrit est joint.
	chert	uf dem Datenträger gespei- e Information stimmt mit dem titichen Sequenzprotokoll ein.		The information recorded on the data carrier is identical to the written sequence listing.		L'information figurent sur le support de données est identique à celle que contient la liste de séquences écrite.
	10. Benennu	ngsgebühren	10.	Designation fees	10.	Taxes de désignation
X	benfach gebühr die Ben Vertrag richtet (in der i	erzeit beabsichtigt, den sie- nen Betrag einer Benennungs- zu entrichten. Damit gelten ennungsgebühren für alle sstaaten des EPÜ' als ent- Art. 2 Nr. 3 GebO), soweit sie nternationalen Anmeldung nt sind ² .	10.1	It is currently intended to pay seven times the amount of the designation fee. The designation fees for all the EPC contracting states designated in the international application are thereby deemed to have been paid (Art. 2 No. 3 RFees).	10.1	Il est actuellement envisagé de payer un montant correspondant à sept fois la taxe de désignation. Les taxes de désignation sont ainsi réputées payées pour tous les Etats contractants de la CBE' désignés dans la demande internationale ² (art. 2, point 3 du RRT).
	10.1 ist als sieb folgend meldur	nend von der Erklärung in Nr. derzeit beabsichtigt, weniger en Benennungsgebühren für e in der internationalen An- og bestimmte Vertrags- des EPÜ? zu entrichten:	10.2	2 The declaration in No. 10.1 does not apply, instead, it is currently intended to pay fawar than seven designation fees for the following EPC contracting states ² designated in the international application:	10.2	Contrairement à ce qui est indiqué au n° 10.1, il est actuellement envisagé de payer moins de sept taxes de désignation pour les Etats contractants de la CBE? suivants désignés dans la demande internationale :
∞ [<u> </u>			(4)		
(2) (3)	 - 			(6)		
_	aufgefü die dort staaten	unter Nr. 10.2 Vertragsstaaten hrt sind, wird beantragt, für nicht aufgeführten Vertrags- von der Zustellung einer ng nach Regel 108(3) EPÜ nen.		If contracting states are indicated under No. 10.2, it is requested that no communication under Rule 108(3) EPC be issued for contracting states not thus indicated.		Si des Etats contractants sont mentionnés au n° 10.2, prière de ne pas procéder à la signification d'une notification prévue par la règle 108(3) CBE pour les Etats contractants n'y étant pas mentionnés.
×	Abbuck so wird lauf der (1)d) EF einer Be Ist eine abgege Benenn angege abgebu nicht bi	n automatischer sungsauftrag erteilt (Feld 12), das EPA beauftragt, bei Ab-Grundfrist nach Regel 107 Ü den siebenfachen Betrag enennungsgebühr abzubuchen. Erklärung nach Nr. 10.2 ben worden, so sollen die ungsgebühren nur für die dort benen Vertragsstaaten cht werden, sofern dem EPA s zum Ablauf der Grundfrist erslautender Auftrag zugeht.	10.:	If an automatic debit order has been issued (Section 12), the EPO is authorised, on expiry of the basic period under Rule 107(1)(d) EPC, to debit seven times the amount of the designation fee. If states are indicated under No. 10.2, the EPO will debit designation fees only for those states, unless instructed otherwise before the basic period expires.	10.3	Si un ordre de prélèvement auto- matique est donné (rubrique 12), il est demandé à l'OEB de prélever, à l'expiration du délai normal visé à la règle 107(1)d) CBE, un montant correspondant à sept fois la taxe de désignation. Si une déclaration a été faite au n° 10.2, les taxes de désigna- tion ne sont à prélever que pour les Etats contractants qui y sont indi- qués, sauf instruction contraire reçue par l'OEB avant l'expiration du délai normal.
	Suisse et Liech Denmark / Dan United Kingdor Luxembourg, 8 Sweden / Suèc	itenstein, CY Zypem / Cyprus / Chypre, Cz emerk, EE Estland / Estonia / Estonia, ES n / Royaume-Uni, GR Griechenfand / Gree AC Monaco / Monaco / Monaco, NL Niede le, SI Słowenien / Słowenia / Słowenie, SK	Spanier Spanier De / Grêd Hande / Slowat	nen this form was printed: 27 contracting states, nameh / Belgique, BG Bulgarien / Bulgarie / Bulgarie, CH / Li hische Republik / Crach Republic / République tchèqu / Scain / Espagne, R Fironkand / Finland / Finland , Finla	rankrek tanda, f si, RO R se, TR T	ch / France / France, GB Vereinigues Königreich / I Italien / Ital
	Estland: 1. Juli in the internati	2002, Slowenien: 1. Dezember 2002, Ur onal application on or after the stated dat	e: Slove	nmeldung am oder nech folgandem Tag bestimmt: Slo Januar 2003 und Rumänion: 1. März 2003. / For the fi k Republic, Bulgaria, Czech Republic end Estonis: 1 Jul 15 suivants seulement si le désignation e été effectuée le tchèque et Estonie: 1° juillet 2002, Slovènie: 1° déc	uly 2002	Stovenia: 1 December 2002, Hungary: 1 January

×	11.	Erstreckung des europäischen Patents Bei Zahlung der Erstreckungs- gebühr(en) gilt diese Anmeldung auch als wirksamer Erstreckungsantrag für die in der internationalen Anmeldung bestimmten »Erstreckungsstaaten«. Es ist beabsichtigt, diese Gebühr(en) für folgende Staaten zu entrichten:	11.	Extension of the European patent On payment of the extension fee(s) this application is also deemed to be a request for extension to all the "extension states" designated in the international application. It is intended to pay the fee(s) for the following states:	11.	Extension des effets du brevet européen La taxe (Les taxes) d'extension payée(s), la présente demande est également réputée être une demande d'extension à tous les «États autorisant l'extension» désignés dans la demande internationale. Il est envisagé de payer la taxe (les taxes) d'extension pour les Etats suivants:
\Box	SI	Slowenien 11		Slovenia ¹⁾		Slovénie 1)
团	U	Litauen		Lithuania		Lituanie
X	LV	Lettland		Latvia		Lettonie
	AL	Albanien		Albania		Albanie
Ħ	RO			Romania ¹⁾		Roumanie ¹⁾
ᅜ	MK			Former Yugoslav Republic		Ex-République yougoslave
ريعي		Republik Mazedonien		of Macedonia		de Macédoine
	_			2		
2)	Space Prévu	Int State with which average acreements" anter	into fo sion» e	degung disses Formbatts in Kint treten und die in der ce after this form has been printed and which were de intraction on the procession of the procession o	signati ire et c	ed in the international epolication, /
	13.	Eventuelle Rückzehlungen auf das beim EPA geführte laufende Konto	13.	Any reimbursement to EPO deposit account	13.	Remboursements éventuels à effectuer sur le compte courent ouvert auprès de l'OEB
		Nummer und Kontoinhaber		Number and account holder		Numéro et titulaire du compte
	14.	Unterschrift(en) des (der) Anmelder(s) oder Vertreters	14.	Signature(s) of applicant(s) or representative	14.	Signature(s) du (des) demandeur(s) ou du mandataire
				Lionello Ceregnato The Chairman of the board of directo	7)	4
		Out / Dotum		Frace / Date Susegana, 15 April 2005		Lieu / Date
		Ort / Datum Für Angestellte (Art. 133(3) EPÜ) mit allgemeiner Vollmacht:	_	For employees (Art. 133(3) EPC) having a general authorisation:		Pour les employés (art. 133(3) CBE) disposant d'un pouvoir général :
		Nr.		No.		N°
		Name(n) des (det) Unterzeichneten bitte in Druck- schrift wiederhoten. Bei juristischen Personen bitte auch die Stellung des (der) Unterzeichneten innerhalb der Geselbschaft in Druckschrift engeben.		Please print name(s) under signature(s). In the case of legal persons, the position of the signatory within the company should also be printed.		Le ou les noms des signataires deivent être indiqués en camathres d'imprimerie. S'il a'egit d'une personne morale, la position cocupée eu sein de calle-o par le or les signataires doit également être indiquée en caractères of imprimerie.

INTERNATIONAL SEARCH REPORT

Internal Application No PCT/11 03/00170

A. CLASSII IPC 7	FICATION OF SUBJECT MATTER E04D1/00 E04D1/02 E04D5/10 E04D7/00	E04F15/12			
	International Patent Classification (IPC) or to both national classifica	flon and IPC			
B. FIELDS	SEARCHED cumentation searched (classification system followed by classification	on symbols)			
IPC 7	E04D E04F E04B É01C	•			
Documentat	ion searched other than minimum documentation to the extent that so	uch documents are included in the fields se	arched		
Electronic d	ata base consulted during the International search (name of data bas	se and, where practical, search terms used			
EPO-In	terna I				
C. DOCUMI	ENTS CONSIDERED TO BE RELEVANT				
Category °	Citation of document, with indication, where appropriate, of the rela	evant passages	Relevant to claim No.		
x	JP 56 022685 A (SUMITOMO CEMENT)		1-10,15,		
	3 March 1981 (1981-03-03)		16 11-14		
A	abstract		11-14		
А	EP 0 794 299 A (VOLTECO S.P.A.) 10 September 1997 (1997-09-10) cited in the application column 2, line 40 -column 3, line figures	40;	1-9,15, 16		
	ner documents are listed in the continuation of box C.	X Patent family members are listed	In annex.		
1	tegories of cited documents :	"T" later document published after the inte or priority date and not in conflict with	rnational filing date the application but		
consid	ent defining the general state of the art which is not lered to be of particular relevance	cited to understand the principle or the Invention	eory underlying the		
filing o		"X" document of particular relevance; the or cannot be considered novel or cannot involve an inventive step when the do	be considered to		
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *I* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone					
P docume	ont published prior to the international filing date but nan the priority date claimed	in the art. *&* document member of the same patent	family		
Date of the	actual completion of the international search	Date of mailing of the international sea	arch report		
2	9 July 2003	05/08/2003			
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2	Authorized officer			
	Nl. – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Righetti, R			

INTERNATIONAL SEARCH REPORT Mobers

Interna I Application No PCT/11 03/00170

Patent document dited in search report		Publication date		Patent family member(s)	Publication date
JP 56022685	Α	03-03-1981	JP JP	1207837 C 58043356 B	-, 00 1,0
EP 794299	A	10-09-1997	IT AT DE DE DK EP ES PT SI	TV960031 A 217377 T 69712395 D 69712395 T 794299 T 0794299 A 2175209 T 794299 T	15-05-200 1 13-06-200 2 05-09-200 3 17-06-200 1 10-09-199 3 16-11-200 31-10-200

PATENT COOPERATION TREATY

	From the INTERNATIONAL BUREAU
PCT	То:
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year) 22 March 2005 (22.03.2005)	NORD RESINE S.p.A. Via Fornace Vecchia, 79 I-31058 Susegana Italy
Applicant's or agent's file reference	IMPORTANT NOTIFICATION
International application No. PCT/IT2003/000170	International filing date (day/month/year) 24 March 2003 (24.03.2003)
1. The following indications appeared on record concerning: X the applicant the inventor Name and Address NORD RESINE s.r.l. Via Fornace Vecchia, 79 I-31058 Susegana Italy	the agent the common representative State of Nationality State of Residence IT IT Telephone No. Facsimile No. Teleprinter No.
2. The International Bureau hereby notifies the applicant that to the person X the name the add	
Name and Address NORD RESINE S.p.A. Via Fornace Vecchia, 79 I-31058 Susegana	State of Nationality State of Residence IT IT Telephone No. +39 438 437511
1taly 0 1. 04, 20	
103	Teleprinter No.
3. Further observations, if necessary: Change in corporate name. New phone number	+39 438437511.
4. A copy of this notification has been sent to:	
X the receiving Office	X the designated Offices concerned
the International Searching Authority the International Preliminary Examining Authority	the elected Offices concerned other:
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer SUAREZ Javier (Fax 338-71-30)
Facsimile No. (41-22) 338.71.30	Telephone No. (41-22) 338 8058







To: EUROPEAN PATENT OFFICE (E.P.O.) D - 80298 MUNCHEN GERMANY

Susegana, 15 April 2005

Subject: Entry into the European phase

International Publication Number WO 2004/057128

With regard to the entry into the European phase, You'll find enclosed the following documents:

- a) copy of the international documents published by the International Bureau, including the description, the original claims, the amended claims, the statement under article 19 (1), the drawings and the international search report;
- b) EPO Form 1200;
- c) EPO Form 1010, with copy of the money transfer order.

Kind regards

The Applicant NORD RESINE S.p.A.

The Chairman of the board of directors

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